Scripting

what is script ?

A: script is a executable file which execute the instructions which are programmed / written /coded in it.

Important pt:

> They are have extension .sh | ex. myscript.sh

> The user needs execution permission to execute .sh files

> They can be run using any compatible shells like bash or sh.

```
bash myscript.sh
sh myscript.sh
```

Few type of shells

1. sh - shell
2. bash - born again shell
3. csh
4. tcsh
5. Ksh

what is shebang (#!/bin/bash) ?

A: Shebang is interpreter for system to make it understand which shell to use.

when writing any shell script, it is mentioned at first line of the script.

it's denoted as

```
#!/bin/bash
#Place to declare Variables
variable=1
variable=2
variable=3

# place to enter execution scripts lines
```

```
    cmd "do something"
    echo "something"
```

what is variable (script variable) ?

a variable is an abstract storage location paired with an associated value.

1. a=1, the value of a is 1
2. x=India, The value of x is stored a India

above a and x are called a variable name

The variable in shell scripting are called by prefixing $ symbol to the variable name. example

```
a=1
x=India
echo "The value of a is $a"
echo " I live in $x"
```

exercise 1 : info.sh

Task to create a script which will fetch dynamic values using few basic commands.

Steps 1: creating a script file name info.sh

```
sudo touch info.sh
```

step2 : edit info.sh by opening it with vim or vi.

```
sudo vim info.sh
```

step 3: Enter the below lines:

```
#!/bin/bash

# Enter the variable here , Dont change the variables.
Name=`whoami`
Date=`date`
working_dir=`pwd`
Plogged='last | wc -c'
```

```
# This is execution part -- using print cmd to execute lines

printf "

1. Hello There, I am $Name
2. Today is $Date
3. I am working on under "$working_dir" directory
4. No of people logged on this machine in past $Plogged

\n **END OF SCRIPT** "
```

step 4: save the file. (escape --> colon --> wq)

Step 5: execute the file from linux. (cd to file directory)

```
bash info.sh
or
shell info.sh
```

You should get below out put.

```
1. Hello There, I am <YourUserName>
2. Today is Mon, Mar  7, 2022  8:52:12 AM
3. I am working on under <direcotoryName> directory
```